

California American Water Cease & Desist Order Hearing
Exhibit 2 – Testimony of Roger Williams
For the Carmel River Steelhead Association

I, Roger Williams declare the following facts are within my personal knowledge and experience:

1. In the 1950's, as I saw on summer visits, the Carmel River ran to the coastal lagoon all summer in all years.
2. I am a long time resident of the Carmel River area and I now generally use and look at the river, from Rosie's Bridge to the Lagoon, approximately each week.
3. Now, even since the ruling in 95-10, water pumping by the California American Water Company (hereinafter Cal-Am) causes the Carmel River to dry up each spring or summer, usually between April and June.
4. Where and when the river dries up, it appears to me to be related to which of California American Water Company's pumps are active from the Carmel River aquifer, with the flow ceasing below the active pumps.
5. As the river flow diminishes from the Cal-Am pumping of water from the river, the Carmel River Steelhead Association (CRSA), an organization that I belong to as a member, goes into action on the river to rescue steelhead, using electro-shocking and netting.
6. CRSA rescues approximately 10,000 juvenile steelhead each year, usually along with several adult steelhead. This would not be necessary as often if Cal-Am's pumping was reduced in accordance with the proposed CDO schedule.
7. Due to limitations that CSRA has, in numbers of volunteers and equipment, and with the rapidity with which the river goes dry, only a relatively small portion of the river is subject to our rescue attempts. In these rescue attempts, only some of the fish present are rescued. For these reasons, many more steelhead lie stranded in the river as it goes dry, and these steelhead are not rescued and therefore die.
8. As the river dries, it goes through a phase of discontinuous pools of stagnant, algae overgrown water where numerous juvenile and the occasional adult steelhead are found dead.
9. Adult steelhead, attempting to return to the sea, are sometimes stranded at the lower end of the water flows and these fish occasionally try to force their way over gravel into the next stagnant pool. From what I have seen, I believe that the river would remain connected and these pools would not form if Cal-Am's pumping were reduced in accordance with the CDO's proposed schedule.

10. When completely dry, the riverbed contains steelhead carcasses that have not yet been scavenged by predators so I know that Cal-Am's pumping of Carmel River water is killing steelhead.
11. When the Carmel River runs dry from Cal-Am's pumping, the level of water in the Carmel lagoon drops.
12. With lower levels of water in the lagoon, I have observed that there is increased predation of steelhead by birds.
13. I have participated in fish counts with fish agencies in the Carmel lagoon that are based on seining which results in the temporary capture, and later release, of juvenile steelhead.
14. Over the years I have observed that the numbers of steelhead, as estimated from rise activity in the evening, and confirmed by agency fish counts, show declining numbers of steelhead late in the summer and into the autumn as the water level in the lagoon drops.
15. The lagoon seems to be superior habitat for maturing juvenile steelhead, with considerably larger smolts (juvenile steelhead ready to go to sea) than those fish that are stranded in the upper reaches of the river where water flows have persisted. Drying of the river from Cal-Am pumping prevents the upriver juveniles from reaching the better habitat for maturation in the lagoon.
16. When the river dries up early or flow is reduced in the spring to a degree that beach sand dunes block the outflow of the lagoon to the ocean, many adult steelhead, who made it to the lagoon, cluster near the location of the blocked outflow, waiting for a chance to return to the sea, but they are often stranded because of physical inability to reach the sea.
17. In my experience, other Central California rivers of comparable size to the Carmel, but without as much water diversion or pumping from the aquifers, flow to their coastal lagoons year-around. Examples that I have observed include the Big and Little Sur Rivers, and the rivers from Santa Cruz, extending up the San Francisco Peninsula.
18. I have observed that when the aquifer of the Carmel River is depleted of water by pumping, usually in the late autumn, that when the winter rains start, it takes a lot of rain, up to 10 inches, before the aquifer is filled and surface flows of the river to the lagoon begin.
19. I have observed that with low or absent water flows into the Carmel lagoon, salt water intrusion into the lagoon through the beach dunes or direct entry of salt water by waves overtopping the dunes results in a bottom layer of salty water with poor oxygen content in the lagoon, forcing fish into the upper water layers. When this happens, the juvenile steelhead are very vulnerable to predation by birds. Therefore, I believe that good water flow into the lagoon is essential for survival of steelhead after they reach the lagoon.
20. In natural lagoons where a river runs to the lagoon year-round, when autumn storms appear, with overtopping waves sending salt water into the lagoon, the steelhead retreat into the river

until river flows increase and the fish are ready to go to sea. On the Carmel River, without year-round flows because of the illegal pumping by Cal-Am, the normal upstream river refuge is not available and the steelhead smolts are trapped and often die.

21. For these reasons, I believe that Cal-Am is violating Order 95-10 and that the proposed CDO is necessary to save the endangered Carmel River Steelhead and that this Board should approve the proposed order.

I declare the above to be true under penalty of perjury.

Roger Williams